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**IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE**

Applicant(s): H. ONO et al

Serial No. : Based on  
PCT/JP01/03271

Filed : Herewith

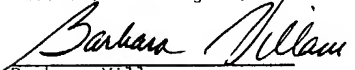
For : HIGH-FREQUENCY CURRENT  
SUPPRESSOR CAPABLE  
OF BEING READILY  
ATTACHED TO CABLE...

Art Unit :  
Examiner :

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Barbara Villani

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**PRELIMINARY AMENDMENT**

Asst. Commissioner for Patents  
Washington, D.C. 20231

S I R :

**IN THE SPECIFICATION:**

**Page 1:** Please insert the following as the first sentence:

--This application is a U.S. National Phase Application  
under 35 USC 371 of International Application PCT/JP01/03271  
(published in English) filed April 17, 2001.--

**IN THE CLAIMS:**

Please substitute amended claims 5-9, 12-14 and 16-19 as  
follows:

5. (amended) A high-frequency current suppressor as claimed  
in any one of claims 1 through 4, wherein said high-frequency  
current suppressor comprises composite magnetic material which  
comprises soft magnetic powder obtained by flattening alloy  
powder including at 25 least Fe, Si, Al, and binding material.

6. **(amended)** A high-frequency current suppressor as claimed in any one of claims 1 through 4, wherein said high-frequency current suppressor comprises composite magnetic material which comprises soft magnetic powder obtained by flattening alloy powder including at least Ni, Fe, and binding material.

7. **(amended)** A high-frequency current suppressor as claimed in any one of claims 1 through 4, wherein said high-frequency current suppressor comprises magnetic loss thin film which includes a first member comprising at least any one of Fe, Co, Ni, or mixture thereof and a second member comprising insulating material including at least more than one kinds of elements other than said Fe, Co, Ni.

8. **(amended)** An earphone system for use in a terminal of mobile communication, wherein said earphone system is provided with said high-frequency current suppressor as claimed in any one of claims 1 through 4.

9. **(amended)** An earphone system comprising a connection plug connected to an output terminal of an electronic equipment, an earphone, and a signal cable for connecting said connection plug with said earphone, wherein a high-frequency current suppressor comprising soft magnetic material is added at least partially to any one of said connection plug, said earphone, and said signal cable.



[illegible]

19. **(amended)** An earphone system as claimed in claims 9 or 10, wherein said high-frequency current suppressor comprises magnetic loss thin film which comprises a first member including at least any one of Fe, Co, Ni, or mixture thereof and a second member including insulating material including at least more than one kinds of elements other than said Fe, Co, Ni.

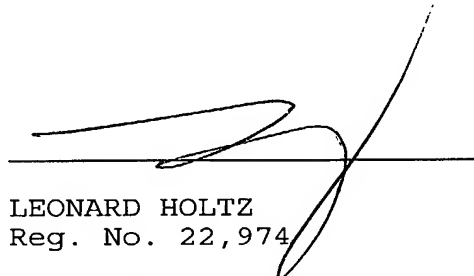
R E M A R K S

In accordance with 37 CFR 1.121(c), a clean copy of amended claims 5-9, 12-14 and 16-19 is set forth in the present Amendment, and a marked-up version of the amended claims 5-9, 12-14 and 16-19 is attached hereto.

A marked-up copy of page 1 of the specification, showing the changes made, is attached.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



LEONARD HOLTZ  
Reg. No. 22,974

Frishauf, Holtz, Goodman, Langer & Chick, P.C.  
767 Third Avenue - 25th Floor  
New York, New York 10017-2023  
(212) 319-4900

Fax No. (212) 319-5101

LH/bv

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 5-9, 12-14 and 16-19 have been amended as follows:

5. **(amended)** A high-frequency current suppressor as claimed in any one of claims 1 through 4, wherein said high-frequency current suppressor comprises composite magnetic material which **[consisting of]** comprises soft magnetic powder obtained by flattening alloy powder including at 25 least Fe, Si, Al, and binding material.

6. **(amended)** A high-frequency current suppressor as claimed in any one of claims 1 through 4, wherein said high-frequency current suppressor **[is consisting of]** comprises composite magnetic material which comprises soft magnetic powder obtained by flattening alloy powder including at least Ni, Fe, and binding material.

7. **(amended)** A high-frequency current suppressor as claimed in any one of claims 1 through 4, wherein said high-frequency current suppressor **[is consisting of]** comprises magnetic loss thin film which includes a first member **[consisting of]** comprising at least any one of Fe, Co, Ni, or mixture thereof and a second member **[consisting of]** comprising insulating material including at least more than one kinds of elements other than said Fe, Co, Ni.

8. **(amended)** An earphone system for use in a terminal of mobile communication, wherein said earphone system is provided

with said high-frequency current suppressor as claimed in any one of claims 1 through [7] 4.

9. **(amended)** An earphone system comprising a connection plug connected to an output terminal of an electronic equipment, an earphone, and a signal cable for connecting said connection plug with said earphone, wherein a high-frequency current suppressor **[consisting of]** comprising soft magnetic material is added at least partially to any one of said connection plug, said earphone, and said signal cable.

12. **(amended)** An earphone system as claimed in **[any one of claims 9 through 11]** claims 9 or 10, wherein said high-frequency current suppressor is provided near a portion where said signal cable and said earphone are connected to each other.

13. **(amended)** An earphone system as claimed in **[any one of claims 9 through 12]** claims 9 or 10, wherein said high-frequency current suppressor is included inside said earphone.

14. **(amended)** An earphone system as claimed in **[any one of claims 9 through 13]** claims 9 or 10, wherein said earphone system further comprises a microphone.

16. **(amended)** An earphone system as claimed in **[any one of claims 9 through 15]** claims 9 or 10, wherein a housing of said earphone or said microphone is formed by said high-frequency current suppressor.

17. (amended) An earphone system as claimed in [any one of claims 9 through 16] claims 9 or 10, wherein said high-frequency current suppressor [is consisting of] comprises composite magnetic material which comprises soft magnetic powder obtained by flattening alloy powder including at least Fe, Si, Al, and binding material.

18. (amended) An earphone system as claimed in [any one of claims 9 through 16] claims 9 or 10, wherein said high-frequency current suppressor comprises composite magnetic material which comprises soft magnetic powder obtained by flattening alloy powder including at least Ni, Fe, and binding material.

19. (amended) An earphone system as claimed in [any one of claims 9 through 16] claims 9 or 10, wherein said high-frequency current suppressor comprises magnetic loss thin film which comprises a first member [consisting of] including at least any one of Fe, Co, Ni, or mixture thereof and a second member including insulating material [consisting of] including at least more than one kinds of elements other than said Fe, Co, Ni.

## DESCRIPTION

HIGH-FREQUENCY CURRENT SUPPRESSOR CAPABLE OF  
BEING READILY ATTACHED TO CABLE OR THE LIKE AND  
5 EARPHONE SYSTEM USING THE SAME

## TECHNICAL FIELD:

The present invention relates to a high-frequency current  
suppressor for suppressing high-frequency conduction noise in a  
10 signal transmission cable used for various electronic information  
equipment, such as a terminal equipment for mobile communication,  
an audio-visual equipment, or the like, and also to an earphone  
system using the high-frequency current suppressor.

## 15 BACKGROUND ART:

Conventionally, various signal transmission cables are  
used for transmitting signals between devices or between  
components in various electronic information equipment.

On the other hand, in various audio-visual equipment for  
20 enjoying music or movies, an earphone system including a signal  
transmission cable having a connection plug at its end, earphone or  
headphone is utilized to enable a user to enjoy music or movies  
without worrying about surrounding sound.

Further, an earphone system combining the above-  
25 described earphone or headphone for enjoying music etc. and a  
microphone has been used in recent years, for example, in a  
terminal equipment for mobile communication, such as a portable  
telephone, or the like. This makes hands-free communication

--This application is a U.S. National Phase Application  
under 35 USC 371 of International Application PCT/JP01/03271  
(published in English) filed April 17, 2001.--